

Original Research Article

## **Assessment of the Effectiveness of Planned Teaching on Knowledge Regarding Prevention and Management of Selected Breast Complications among Antenatal Mothers in Selected Hospital**

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### **ABSTRACT**

In philosophy, the woman symbolizes the mother's natural feminine characteristics in the universe. Women are the primary care takers, bearers, and nurturers of the next generation. They are also vulnerable group. Among the women's population in our country, the women under the child bearing age constitutes 22%. The incidence of health problems is high among the women of reproductive age. Women's health is an issue which has been taken up by many feminists, especially where reproductive health is concerned.

**Methods:** A descriptive research approach was used for the present study. The study comprised of 50 antenatal mothers who fulfilled inclusive criteria and admitted in selected hospital. Knowledge questionnaire was used for data collection. The reliability of questionnaire was done by Guttman Split Half Coefficient method. In order to obtain content validity, the tool was given to 10 experts who included from the field of Obstetric and Gynaecological department and Obstetric and Gynaecological Nursing. Non probability convenience sampling technique was used. Formal permission was obtained from concerned authority from selected Hospital for data collection.

**Results:** The results showed that most of the samples under study were between the age group of 21-25 years. 54 % of samples were primi gravida. Result interpreted that In pre test knowledge level regarding prevention and management of selected breast complications was 10.4 (41.6 %) and in post test it was 19.20 (76.8 %). It is evident that the calculated 't' value was greater than the table value of 't' at 0.05 level. This indicates that planned teaching was effective in improving the knowledge of the antenatal mothers. There was not significant association found with selected demographic variable and knowledge of antenatal mothers.

**Conclusion:** The analysis of the study revealed that there was a significant improvement in the knowledge of prevention and management of breast complications among antenatal mothers. The Planned teaching proved to be effective in improving the knowledge of antenatal mothers regarding prevention and management of breast complications. Hence in this study Hypothesis  $H_0$  is rejected and  $H_1$  is accepted.

**Keywords:** Antenatal mother, breast complications.

### **INTRODUCTION**

Human milk has no substitute and breast is nature's apparatus for feeding babies. Breast feeding is an art. In recognition of the immense importance of breast feeding, the Baby - friendly hospital Initiative was launched by UNICEF/WHO in 1991. Breast feeding results in decreased problems such as infections and other

medical problems. Breast feeding is one of the first bonding experiences between mother and child. <sup>[1]</sup>

In philosophy, the woman symbolizes the mother's natural feminine characteristics in the universe. Women are the primary care takers, bearers, and nurturers of the next generation. They are also vulnerable group. Among the women's

population in our country, the women under the child bearing age constitutes 22%. The incidence of health problems is high among the women of reproductive age. Women's health is an issue which has been taken up by many feminists, especially where reproductive health is concerned. [2]

Breastfeeding is considered as one of the most natural and intimate of all human interactions. As a mother, one of the best things a woman can do for her infant is breastfeeding. Several common problems that may arise during the breastfeeding period, such as breast engorgement, retracted nipple, breast infection (mastitis) and insufficient milk supply, originate from conditions that lead the mother in trouble or in problem during breastfeeding. [3]

There are circumstances under which breast feeding can be problematic. Common problems that arise during the breast feeding period are breast engorgement, plugged milk ducts, breast infection (mastitis), and sore or painful nipple. These problems can cause distress, mild discomfort or significant pain. Therefore, many women stop breast feeding few weeks after delivery. However, these problems can be treated effectively, allowing the woman to continue breastfeeding, which benefits her and her infant's health. [4]

Several common problems that may arise during the breast feeding period, such as breast engorgement, plugged milk duct, breast infection and insufficient milk supply, originate from conditions that lead the mother to inadequately empty the breasts. Incorrect techniques infrequent breast feeding and breast feeding on scheduled times, pacifiers and food suppliers are important risk factors that can predispose to lactation problems. The adequate management of those conditions is fundamental, as if not treated they frequently lead to early weaning. These problems can be prevented if the mother empties her breast effectively. If they occur, they should be carefully and adequately approached, thus avoiding the early weaning

resultant from painful and stressing situations the mother may face. [5]

Breast infection is a serious and painful complication of the puerperium. The organism causing breast infections are often passed between baby and mother, therefore preventive education is vital. The midwife may consider it appropriate to interweave discussion related to postnatal maternal diet and fluid intake into this part of the assessment. [6]

Breast engorgement is an accumulation of increased amounts of blood and other body fluids, as well as milk. The engorged breast becomes very full, tender and lumpy. The common causes of engorged breasts are giving placental feeds, delayed initiation of breastfeeds, early removal of the baby from the breast, bottle feeding and any restriction on breastfeeding. [6]

Deep breast pain, in most cases responds to improvement in breastfeeding technique and is thus likely to be due to raised intraductal pressure caused by inefficient milk removal. Although it may occur during the feed it typically occurs afterwards, and thus can be distinguished from the sensation of the let-down reflex, which some mother's experiences as a fleeting pain. [6]

Mastitis is an infection of the breast tissue. It is caused by organisms acquired from the infants nasopharyngeal or umbilical areas, which harbors colonies of the staphylococci or streptococci that develop within a few days of birth. It occurs at the end of the first week following birth. The mother develops a fever and a tender, red, firm to hard areas are felt in one of the breasts. Treatment consists of analgesics and antibiotics. If it is not too painful, the mother should be emptied after a feed, as incomplete emptying leaves stagnant of milk in the system, which may become infected. [7]

Cracked nipple or sore nipples are due to aggressive suckling by the baby, particularly if the nipple is not well fitted within the infant's mouth. If the cracking is severe, the baby should not be fed from the

affected breast which should be emptied manually or by using a breast pump. [7]

Plugged milk ducts are a common problem, encountered during the nursing period. This happens when one of the milk ducts becomes obstructed, causing a back up of the milk. The woman usually notice a sore, reddened lump in one area of her breast. The woman should be taught to continue nursing, take acetaminophen, apply warm compresses and massage the sites, nurse in different positions, including on her knees to facilitate drainage of the breast and to avoid constricting clothing or bra, including underwear bras. If the site does not improve within a few days, she should contact her health care provider. [8]

Breast abscess, the infection usually enters through a break in the skin. It is usually confined to one quadrant of the breast. The most common organism identified is staphylococcus aureus, mostly from the infant's nose or throat. The infant is usually infected from the nursery personnel. The mother will have raised temperature, tachycardia, erythematous segment of the breast, even fluctuation. It can be managed by using broad spectrum antibiotic coverage; cloxacillin, cephalexin, cefuroxime, adequate supportive brassiere, continuing breastfeeding from the normal breast emptying the affected breast by means of a breast pump. Surgical management is done under anesthesia by making circular incision over the areola followed by drainage. [9]

Flat or retracted nipple is commonly met in primigravidae. It is usually acquired. Babies are able to attach to the breast correctly and are able to suck adequately. In difficult cases, manual expression of milk can initiate lactation. Gradually breast tissue becomes soft and more protractile, so that feeding is possible. [10]

Breast feeding is one of the first bonding experiences between mother and baby." Breast is the best" says British medical journal of breast feeding. Breast feeding empowers women. Breast feeding the baby brings joy to the mother which cannot be expressed by words. The feeling

the mother gets when she continues to nourish her baby at her breast and see the baby grow and thrive on breast milk is awesome. [11]

According to WHO, 33% of all women experienced breast problem in the first 2 weeks of post partum and 20% in the weeks thereafter. [12]

A survey carried out at the mother and baby's convalescent home on the outskirts of Jerusalem, Israel determined the prevalence of sore and cracked nipples at the onset of lactation in 127 women. More than 30% of mothers were found to suffer from sore or cracked nipples after delivery even though they had been instructed how to hold the sucking infant correctly. [13]

Breast infection is a serious and painful complication of the puerperium. The organism causing breast infections are often passed between baby and mother, therefore preventive education is vital. The midwife may consider it appropriate to interweave discussion related to postnatal maternal diet and fluid intake into this part of the assessment. [14]

A cross sectional study was conducted in America on common breast feeding problems. The sample consisted of 30,000 American women. The study result revealed that, 32% of women did not start breast feeding, 4% breast fed for less than a week, 13% breast fed for one to four weeks, and 51% breastfed for more than four weeks. The study showed that, the common reasons for stopping breast feeding were sore or cracked nipples, not producing enough milk; the baby had difficulty in feeding or perception that the baby was not satisfied with breast milk. The study concluded that, lack of awareness among the mothers was the main cause of difficulty in establishing breastfeeding. [15]

### **Problem Statement**

"Assessment of the effectiveness of Planned Teaching on knowledge regarding prevention and management of selected breast complications among antenatal mothers in selected hospital."

## Objective

1. To assess the knowledge of antenatal mothers regarding prevention and management of breast complications before planned teaching.
2. To assess the knowledge of antenatal mothers regarding prevention and management of breast complications after planned teaching.
3. To associate the knowledge of the antenatal mothers regarding prevention and management of selected breast complications with selected demographic variables such as age and education.

## MATERIALS AND METHODS

A descriptive research study approach was used for present study. The study comprises of 50 antenatal mothers who fulfilled inclusive criteria and admitted in selected Hospitals by non-probability convenience sampling. One group pre test post test quasi experimental design was used for this study. Knowledge questionnaire was used for data collection. The content Validity of the tool was established in consultation with guide and 12 experts from the field of obstetrics and gynecological Nursing. The reliability of questionnaire was done by Guttman Split Half Coefficient method. The reliability co-efficient 'r' of the knowledge questionnaire was 0.86, hence the questionnaire was found to be reliable. The purpose and important of research study explain before collection of data.

## Hypothesis:

H<sub>0</sub>-There is no significant difference between pre test and post test knowledge score regarding prevention and management of breast complication among antenatal

mother measured at P < 0.05 level of significance.

H<sub>1</sub>-There is significant difference in pre test and post test knowledge score after delivering planned teaching regarding prevention and management of breast complication among antenatal mother measured at P < 0.05 level of significance.

## RESULTS

Analysis and interpretation is based on the objectives of the study. The analysis was done with the help of inferential and descriptive statistics. Frequency and percentage wise distribution of demographic variables of antenatal mothers.

Table 1: Percentage wise distribution of antenatal mothers according to their demographic characteristics n=50

Sr. No.	Demographic Variables	No. of mothers	Percentage (%)
1.	<b>Age(yrs)</b>		
	21-25	29	58
	26-30	21	42
	31-35	00	00
	36 and above	00	00
2.	<b>Gravida</b>		
	Primi gravida	27	54
	Multi gravida	23	46
3.	<b>Educational Status</b>		
	Primary	10	20
	Secondary	26	52
	Graduation	14	28
	Post graduation	00	00
4.	<b>Previous knowledge</b>		
	Yes	36	72
	No	14	28
5	<b>Source of Information</b>		
	Health professionals	2	4
	Family	14	28
	Friends	6	12
	Mass media	14	28

The above table 1 shows that 58% of sample belongs to 21-25 years of age and 54% of samples were primi gravida. 52% of mothers had completed their secondary education. 72% of mothers were having previous knowledge and gain from family and friends.

Table 2: Level of knowledge score of mothers in pre and post test. n=50

Level Of Knowledge Score	Pre test		Post test		$\chi^2$ value	p-value
	f	%	f	%		
Poor	00	00	00	00	7.79	p < 0.0001, Significant
Average	45	90	00	00		
Good	5	10	29	58		
Excellent	00	00	21	42		

The above table 2 depicts that in pre test 90 % of the samples had average level of knowledge score, 10 % had good level of knowledge score. In post test 58 % of the samples had good level of knowledge score and 42 % had excellent level of knowledge score. The difference between pre test and post test level of knowledge score was found to be statistically significant ( $\chi^2$ -value= 7.79).

**Table 3: Significance of knowledge score regarding prevention and management of selected breast complications of antenatal mothers before and after planned teaching. n=50**

Overall	Maximum score	Mean	Standard deviation	Mean percentage	t-value	p-value
Pre Test	15	10.40	2.12	41.6	32.28	0.000 S.p<0.05
Post Test	23	19.20	1.93	76.8		

The above table 3 depicts that in the pre test the mean of the knowledge score obtained by the sample was 10.40 and in the post test it rise to 19.20. The knowledge score of the sample shows marked improvement after giving planned teaching. From the above table, it is evident that the calculated 't' value was greater than the table value of 't' at 0.05 level. This indicates that planned teaching was effective in improving the knowledge of the antenatal mothers.

**Table 4: Area wise distribution of the knowledge score of the sample. n=50**

Area	Pre Test			Post Test			't' value
	Mean	S.D	Mean %	Mean	S.D	Mean %	
Definition	1.96	1.14	49.00	3.56	0.54	89	10.77
Causes & Risk factor	2.28	0.96	45.60	3.90	0.76	78	13.40
Sign & symptoms	1.08	0.77	36.00	2.30	0.67	76.7	10.58
Management	1.56	0.97	39.00	2.82	0.69	70.5	11.09
Prevention	1.08	0.85	36.00	2.10	0.61	70	9.37
Breast feeding	2.42	1.01	40.50	4.52	0.99	75.3	14.92
Total (Overall)	10.40	2.12	41.6	19.20	1.93	76.8	32.28

The above table 4 shows that the 't' value was computed to find out whether the effect of planned teaching on the knowledge of antenatal mothers was significant. From the above table it is evident that all the calculated 't' values were greater than the table value of 't' at 0.05 level. This indicates that each gain in the post test is significant. It proves the importance of planned teaching in the improvement of knowledge, statistically..

## DISCUSSION

An experimental study on breast feeding technique in prevention of nipple sore was conducted on 60 primi postnatal mothers in Chennai. A structured teaching plan was administered to the experimental group. The results showed that the overall mean score of the experimental group was 42.14 in the pre-test group, the overall mean score was 40.48 in pre- test and only 51.19 in the post- test. In this study post-test showed that experimental group had gain in knowledge and skill regarding breastfeeding where as the control group had more sore

nipple. The comparison of knowledge gain between both groups highlighted the difference after the structured teaching. The study concluded that education on breastfeeding technique helps in prevention of nipple sore. [16]

Hence there was a significant improvement in the knowledge of prevention and management of breast complications among antenatal mothers. The planned teaching proved to be effective in improving the knowledge of antenatal mothers regarding prevention and management of breast complications.

## CONCLUSION

The analysis of the study revealed that there was a significant improvement in the knowledge of prevention and management of breast complications among antenatal mothers. The Planned teaching proved to be effective in improving the knowledge of antenatal mothers regarding prevention and management of breast complications. Hence in this study Hypothesis  $H_0$  is rejected and  $H_1$  is

accepted. There was no association of knowledge score with their selected demographic variables. This study will help the nurse to develop appropriate teaching material to improve knowledge regarding prevention and management of selected breast complications.

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How to cite this article: Bayaskar MV. Assessment of the effectiveness of planned teaching on knowledge regarding prevention and management of selected breast complications among antenatal mothers in selected hospital. Int J Health Sci Res. 2019; 9(2):145-150.

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